REMARKS

Prior to this Amendment B, claims 1-22 and 43-46 were pending. Claims 1, 10, and 21 have been amended. Support for these amendments can be found in original claim 2; and further, in the specification on page 5, lines 5-11. Claims 2, 15, 22, and 43-46 have been canceled in this Amendment B. After entry of this Amendment B into the record, claims 1, 3-14, and 16-21 will be pending. No new matter has been added by these amendments. Applicants note that upon allowance of a generic claim, applicants will be entitled to examination of claims 23 and 24.

1. **Rejection of Claims 1-5, 10-12, 15-18, and 43-46 Under 35 U.S.C. 102(b)**

Reconsideration is respectfully requested of the rejection of claims 1-5, 10-12, 15-18, and 43-46 under 35 U.S.C. 102(b) as being anticipated by Foster (U.S. No. 3,406,015).

Claim 1, as amended, is directed to a product comprising an absorbent product and a carbohydrate-hydrogen peroxide mixture for reducing the amount of irritation on the wearer's skin caused by microbial-produced volatile organic compounds. The mixture is capable of generating oxygen upon activation and the oxygen acts as a terminal electron acceptor for bacteria at or near the skin's surface such that the production of volatile organic compounds is reduced. The absorbent product is selected from the group consisting of diapers, training pants, adult incontinence garments, feminine napkins, tampons, and interlabial pads.

Foster discloses a test implement useful in detecting the fertile period of the female which comprises an absorbent paper material impregnated with a mannitol-peroxide complex and an organic compound which forms a colored oxidation product in the presence of oxygen released from peroxide. The test implement or test paper is preferably an absorbent paper, for example, an

absorbent and chemically pure grade of filter paper or the like. Further, cloth strips or porous and absorbent wood strips also may be employed.

Significantly, Foster fails to disclose a carbohydrate-hydrogen peroxide mixture on a product selected from the group consisting of diapers, training pants, adult incontinence garments, feminine napkins, tampons, and interlabial pads. This is a requirement of amended claim 1, and is a significant aspect of Applicants' invention.

As noted in M.P.E.P. §2131, a claim is anticipated only if each and every element as set forth in the claim is found in a prior art reference. Because Foster fails to disclose a product selected from the group consisting of diapers, training pants, adult incontinence garments, feminine napkins, tampons, and interlabial pads comprising a carbohydrate-hydrogen peroxide mixture, Foster does not disclose each and every element of amended claim 1. As such, the Foster reference does not anticipate claim 1, and claim 1 is patentable.

Claims 3-5 depend either directly or indirectly from claim 1 and are patentable for the same reasons as claim 1 set forth above, as well as for the additional elements they require.

Claim 10, as amended herein, is directed to a product comprising an absorbent product and a carbohydrate-hydrogen peroxide mixture. The carbohydrate comprises a sugar alcohol. Amended claim 10 is similar to amended claim 1; and as such, is patentable for the same reasons as amended claim 1 set forth above, as well as for the additional element it requires.

Claims 11-12, and 16-18 depend either directly or indirectly from claim 10 and are patentable for the same reasons as claim 10 set forth above, as well as for the additional elements they require.

2. Rejection of Claims 1-5, 10-12, 15-18, and 43-46 Under 35 U.S.C. 103(a)

Reconsideration is respectfully requested of the rejection of claims 1-5, 10-12, 15-18, and 43-46 under 35 U.S.C. 103(a) as being obvious in view of Foster (U.S. No. 3,406,015).

Claim 1, as amended herein, and Foster are discussed above.

As noted in M.P.E.P. 2142, in order to establish a *prima facie* case of obviousness, the Office must show that the prior art reference teaches or suggests all of the limitations of the claims.

As stated above, Foster fails to disclose or suggest an absorbent product selected from the group consisting of diapers, training pants, adult incontinence garments, feminine napkins, tampons, and interlabial pads comprising a carbohydrate-hydrogen peroxide mixture for reducing the production of volatile organic compounds by bacteria on or near the skin's surface. By contrast, Foster's test provides for a convenient and accurate test method and test paper for detecting the fertile period of a female by a simple test on saliva. Foster fails to disclose or suggest an absorbent product as required by claim 1, and is directed to a completely different problem. Because Foster fails to disclose or suggest an absorbent product as required by amended claim 1, it cannot be said to render claim 1 obvious. Therefore, claim 1, as amended, is patentable.

Claims 3-5 depend either directly or indirectly from claim 1 and are patentable for the same reasons as claim 1 set forth above, as well as for the additional elements they require.

Claim 10, as amended, is discussed above. As claim 10 is similar to claim 1, it is patentable for the same reasons as claim 1 set forth above, as well as for the additional element it requires.

Claims 11-12 and 16-18 depend either directly or indirectly

from claim 10 and are patentable for the same reasons as claim 10, as well as for the additional elements they require.

3. Rejection of Claims 1-22 and 43-46 Under 35 U.S.C. 103(a)

Reconsideration is respectfully requested of the rejection of claims 1-22, and 43-46 under 35 U.S.C. 103(a) as being obvious over Kirk et al. (U.S. 6,025,186) in view of EP 1,043,273 and DE 3,820,726.

Claim 1, as amended herein, is discussed above.

Kirk et al. disclose the use of a haloperoxidase enzyme in combination with a hydrogen peroxide source to reduce the malodor emanating from soiled hygiene products. The hygiene products disclosed include diapers, adult incontinence products, training pants, feminine napkins, tampons, and the like. Specifically, Kirk et al. disclose the use of haloperoxidase in the presence of hydrogen peroxide, or a hydrogen peroxide precursor, to oxidize the halide ions in urine into hypohalous acid which inhibits the activity of urease, or is capable of killing or inhibiting the growth of microbial cells, thereby reducing the malodour in hygiene products.

Significantly, Kirk et al. fail to disclose the combination of a carbohydrate-hydrogen peroxide mixture (i.e., the combination of mannitol and hydrogen peroxide) in an absorbent product, such as a diaper. This is a requirement of claim 1 and is an important aspect of Applicants' invention. Recognizing that Kirk et al. fail to make such a disclosure, the Office cites EP 1,043,273 for combination with Kirk et al. in an attempt to find each and every element of Applicants' claim 1 and thus render the claim obvious in view thereof.

EP 1,043,273 discloses a hydrogen peroxide solution which is intended to be used for preventing contaminations and as a decontaminent and sterilizer. The hydrogen peroxide solution is

suitable for use on packaging goods for food products. The solution comprises hydrogen peroxide and at least one stabilizer. In one embodiment, the stabilizer can be a polyalcohol, such as mannitol. The stabilizer reduces the rate of decomposition of hydrogen peroxide. The slower decomposition will allow for a more stable hydrogen peroxide solution used for disinfection and sterilization of products such as packaging goods for food products, as well as pharmaceutical and cosmetic products.

Although expressly stating that the prior art does not disclose the combination of mannitol and hydrogen peroxide in an absorbent article, the Office takes the position that such a combination would have been obvious as mannitol could be used to stabilize the hydrogen peroxide of Kirk et al. in an absorbent article to make the hydrogen peroxide storage stable. Applicants respecfully disagree. Applications assert that such a combination is improper.

As noted in M.P.E.P. 2143, in order to establish a prima facie case of obviousness, the Office must show some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the reference teachings and arrive at the applicants' invention. The mere fact that the references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. Applicants assert that such a motivation or suggestion is lacking in the present case.

Although Kirk et al. do disclose an absorbent product comprising hydrogen peroxide (in combination with specific haloperoxidase enzymes), the reference fails to show or suggest a teaching of the instability (or the need to improve stability) of hydrogen peroxide within the absorbent product. There is simply no teaching or suggestion by the primary reference that there is any instability issue with regard to the hydrogen peroxide

component of the mixture added to the absorbent article. It is well known to those skilled in the art that disposable absorbent products may not be ultimately used by the consumer for a period of weeks or even months after manufacture. As such, because Kirk et al. fail to disclose that there is any stability issue with respect to the hydrogen peroxide, one skilled in the art would not have been motivated to look for a solution to a non-existent problem. Applicants note that Kirk et al. disclose at column 3, lines 26-31 that the only mandatory criteria for successful use of the haloperoxidase/hydrogen peroxide combination is that one skilled in the art ensure that it is placed in the absorbent article such that it contacts the urine. There is no disclosure of any stability issues.

Additionally, the references fail to teach that by combining mannitol with a combination of hydrogen peroxide and a haloperoxidase enzyme, hydrogen peroxide will be stabilized. There is no teaching with respect to the effect of mannitol or any other carbohydrate on the Kirk et al. solution.

Based on the foregoing, one of ordinary skill in the art would not be motivated to consider the EP 1,043,273 reference in combination with the primary Kirk et al. reference to provide for a carbohydrate-hydrogen peroxide mixture on a product selected from the group consisting of diapers, training pants, adult incontinence garments, feminine napkins, tampons, and interlabial pads. This is an important requirement of amended claim 1. Therefore, claim 1, as amended, cannot be said to be rendered obvious over Kirk et al. in view of EP 1,043,273, and is patentable.

Claims 3-7 and 9 depend either directly or indirectly from claim 1 and are patentable for the same reasons as claim 1 set forth above, as well as for the additional elements they require.

Claim 10, as amended, is discussed above. As amended claim

10 is similar to amended claim 1, it is patentable for the same reasons as amended claim 1 set forth above, as well as for the additional element it requires.

Claims 11-14, 16-20 depend either directly or indirectly from claim 10 and are patentable for the same reasons as claim 10, as well as for the additional elements they require.

Claim 21, as amended herein, is directed to a product comprising an absorbent product and from about 0.01% (by weight of the product) to about 5% (by weight of the product) of a mannitol-hydrogen peroxide mixture. As claim 21 is similar to claim 1, it is patentable for the same reasons as claim 1 set forth above, as well as for the additional elements it requires.

Claim 8, dependent upon claim 1, is directed to a product comprising an absorbent product selected from the group consisting of diapers, training pants, adult incontinence garments, feminine napkins, tampons, and interlabial pads and a carbohydrate-hydrogen peroxide mixture. The carbohydrate-hydrogen peroxide mixture is further encapsulated in a shell.

Kirk et al. fail to disclose the combination of an encapsulated carbohydrate-hydrogen peroxide mixture in a product. This is a requirement of claim 8 and is an important aspect of Applicants' invention. Recognizing that Kirk et al. fail to make such a disclosure, the Office cites DE 3,820,726 for combination with Kirk et al. in an attempt to find each and every element of Applicants' claim 8.

DE 3,820,726 discloses hydrogen peroxide compounds encapsulated by water-soluble homopolymers or copolymers carrying free carboxylic groups, preferably acrylic acid or methacrylic acid. Encapsulating a hydrogen peroxide compound increases the shelf-life of the hydrogen peroxide compound without the problems of hydrogen peroxide evolution occurring on contact with water.

Although Kirk et al. do disclose an absorbent product comprising hydrogen peroxide, no where in the reference is there a teaching of a need to increase the shelf-life of the hydrogen peroxide mixture in the absorbent product. Further, it is no where suggested by either reference that by encapsulating the combination of hydrogen peroxide with a haloperoxidase enzyme, hydrogen peroxide will have a longer shelf-life without the problems of evolution occurring on contact with water. Thus, one of ordinary skill in the art would not be motivated to combine DE 3,820,726 with Kirk et al. to provide for an encapsulated carbohydrate-hydrogen peroxide mixture on an absorbent product selected from the group consisting of diapers, training pants, adult incontinence garments, feminine napkins, tampons, and interlabial pads. This is an important requirement of claim 8. As such, claim 8 is not rendered obvious over Kirk et al. in view of DE 3,820,726, and claim 8 is patentable.

Claim 19 is directed to a product comprising an absorbent product and carbohydrate-hydrogen peroxide. The carbohydrate comprises a sugar alcohol. Further, the carbohydrate-hydrogen peroxide mixture is encapsulated in a shell. Claim 19 is similar to claim 8. As such, claim 19 is patentable for the same reasons as claim 8 stated above, as well as for the additional elements it requires.

Claim 20 depends directly from claim 19 and is patentable for the same reasons as claim 19, as well as for the additional element it requires.

In view of the above, applicants respectfully request favorable reconsideration and allowance of all pending claims. The Commissioner is hereby authorized to charge any fee deficiency in connection with this Amendment B to Deposit Account Number 19-1345 in the name of Senniger, Powers, Leavitt & Roedel.

Respectfully submitted,

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